

NATURAL RESOURCES

ENDANGERED SPECIES

Indicator 14. Threatened, Endangered and Rare Species

Background The diversity of living things, or biological diversity, as it has come to be known, is a fundamental aspect of life on our planet.¹ The concern over biodiversity has heightened in the past 25 years as the world's human population has exceeded 6

One component of biological diversity is the many different kinds of plants, mammals, birds, fish and other organisms that make up our natural world. It has been estimated that there may be up to 204,700 native species in the United States.² Thousands of other species, especially insects and microorganisms, have yet to be described and classified.

There are numerous reasons why some of these species have become extinct. Some are naturally rare and were so historically. However, many extinctions have been the result of pollution, habitat alteration and destruction, competition from exotic species and overharvesting. In Kentucky, 45 native species such as the ivory-billed woodpecker, gray wolf, red wolf and eastern cougar no longer exist in the state.³ Nationwide, more than 1,000 species of wildlife and plants have been listed by the U.S. Fish and Wildlife Service as threatened or endangered.

A number of species, while not listed as federally threatened or endangered, are deemed to be rare in Kentucky. The Natural Heritage Database, the primary source of native species information in the state, currently lists 560 bird, fish, mussel, plant, mammal and amphibian/reptile species that are considered rare or of special concern; that's 18 percent of all those known species in the state.

The Kentucky State Nature Preserves Commission continues to revise the state's listing of rare species. As more information is gathered, additional groups have been added to the list, including mosses, lichens, millipedes and arachnids. The Kentucky Legislature passed the Rare Plant Recognition Act in 1994 to recognize endangered and threatened species of plants. The Nature Preserves Commission is preparing to finalize an official list of rare plants through the regulatory promulgation process.

Goal Identify, protect, manage and recover habitat for animals and plants that are in danger of extinction.

Progress Since the passage of the federal Endangered Species Act in 1973, 5.8 percent of the 18,949 known native species of plants, fish, mussels, amphibians, reptiles, birds and mammals in the United States have been federally-listed as threatened or endangered.⁴ Forty-two (1.4 percent) of Kentucky's species have been federally listed as threatened or endangered. Federally-listed threatened and endangered species are known to occur in 101 of the 120 counties of Kentucky.

Kentucky ranks 12th in the nation in the number of federally-listed threatened and endangered species. This ranking is the result of several factors, including the high level of biodiversity found

At a Glance

Kentucky's wild species*.....3,125

Number listed as federally threatened and endangered....42

Number considered rare560

Number extinct or extirpated45

**Does not include insects, arachnids, snails, and crustaceans.*

Measure 1. Top 15 States with Most Threatened and Endangered Species

state	# species	state	# species
1. Hawaii	312	9. Virginia	53
2. California	276	10. Arizona	50
3. Florida	100	11. N. Carolina	48
4. Alabama	99	12. Kentucky	42
5. Tennessee	88	13. Utah	40
6. Puerto Rico	75	14. New Mexico	38
7. Texas	55	15. Mississippi	32

Measure 2. Species at Risk in the U.S. and Kentucky

	vascular plants	birds	amphibians/reptiles	mussels	fish	freshwater	mammals	total
United States								
total species*	16,108	822	520	305	776	418	18,949	
endangered	564	78	24	61	69	63	859	
threatened	141	15	30	8	44	9	247	
rare***	60	72	72	152	195	30	581	
Kentucky								
total species*	2,262	350	103	103	237	70	3,125	
federally listed	9	4	0	20	4	4	41*	
rare**	372	49	28	36	61	14	560	
extinct/extirpated	4	8	1	19	8	5	45	

ENDANGERED SPECIES

Measure 3. Federally Threatened/ Endangered Species in Kentucky (2001)

Mammals

Indiana bat
Virginia big-eared bat
Gray bat
Eastern puma

Birds

Bald eagle
Least tern
Red-cockaded
woodpecker
Piping plover

Fishes

Blackside dace
Relict darter
Palezone shiner
Pallid sturgeon

Mussels

Clubshell
Fanshell
Cumberland bean
Cumberland elktoe
Cracking pearlymussel
Dromedary pearlymussel
White wartyback
pearlymussel
Cumberlandian combshell

Mussels

Littlewing pearlymussel
Pink mucket pearlymussel
Catspaw
Rough pigtoe
Fat pocketbook
Northern riffleshell
Tan riffleshell
Ring pink
Orangefoot pimpleback
Oyster mussel
Winged mapleleaf
Tubercled blossom

Plants

Cumberland rosemary
Cumberland sandwort
Price's potato-bean
Braun's Rock cress
Running buffalo clover
Short's goldenrod
Virginia spiraea
White-haired goldenrod
Eggert's sunflower
Crustacean
Mammoth Cave Shrimp

in the state and the extensive alteration of natural ecosystems that has occurred, such as the clearing of forests and the damming of rivers.

Efforts are underway to restore several species of wildlife and plants in Kentucky. Recent initiatives have focused on the river otter, black bear, elk, peregrine falcon, osprey, White-haired goldenrod, Eggert's sunflower and Braun's rock cress.

Footnotes

1. *Kentucky Alive, Report of the Kentucky Biodiversity Task Force, 1995.*
2. *Precious Heritage: The Status of Biodiversity in the United States, The Nature Conservancy, 2000.*
3. *Endangered Species Listed in Each State, U.S. Fish and Wildlife Service, Web site - <http://ecos.fws.gov/webpage/usmap.html>, September 1, 2000.*
4. *General Statistics for Endangered Species, U.S. Fish And Wildlife Service, Web site - <http://endangered.fws.gov/stats/genstats.html>, May 31, 2000.*

Measures - notes and sources

Measure 1. Threatened and endangered species based on data from the U.S. Fish and Wildlife Service. *Does not include the Mammoth Cave Shrimp (a crustacean) which is also federally-listed as threatened and endangered. Source: Ky. Nature Preserves Commission, U.S. Fish and Wildlife Service.

Measure 2. Does not include insects, arachnids, snails, crustaceans. *Includes native species only. **Species considered threatened and endangered in Kentucky (but not all necessarily

rare in other states) as listed by the Ky. Nature Preserves Commission. ***Designated as GX (presumed extinct), GH (possibly extinct), G (critically imperiled) and G2 (imperiled) by the Natural Heritage Central Database. Source: Ky. State Nature Preserves Commission, U.S. Fish and Wildlife Service.

Measure 3. Federal listing based on historic range of species. Not all listed species still occur in Kentucky. For example, the eastern puma has been extirpated from the state. Source: U.S. Fish and Wildlife Service.

Measure 4. Source: Ky. State Nature Preserves Commission.

Measure 5. Species considered threatened and endangered in Kentucky (but not all necessarily rare in other states) as listed by the Ky. State Nature Preserves Commission. Source: Ky. State Nature Preserves Commission.

Measure 4. Federally Listed Threatened and Endangered Species in Kentucky

Number of species

0
1-2
3-4
5-8
9-14



Measure 5. Rare Species in Kentucky

Number of Rare Species

1-11
12-20
21-32
33-49
50-90
91-133

